# IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re application of:    Wright J. Nee

Serial No.:        09/903,131

Filed:             July 11, 2001

Group Art Unit:    2614

Confirmation No.:   9531

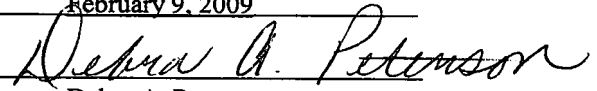For:             AUTOMATIC BROADCAST CHANNEL TUNING
APPARATUS AND METHOD

Mail Stop Appeal Brief - Patents
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Dear Sir:

## APPEAL BRIEF IN SUPPORT OF APPEAL
## FROM THE PRIMARY EXAMINER TO THE BOARD OF APPEALS

This is amended Appeal Brief is being submitted in response to the Notification of Non-Compliant Appeal Brief dated January 15, 2009.

## 1. Real Party in Interest

International Business Machines Corporation is the real party in interest.

## 2. Related Appeals and Interferences

There are no related appeals or interferences pending with this application.

## 3. Status of Claims

Appellant appeals from the rejection in the October 29, 2008 Final Office Action of claims 1, 4-13, 15-29, 31-39, and 41. Claims 2, 3, 14, 30, 40, and 42 have been cancelled. The claims on appeal are set forth in Appendix A.

## 4. Status of Amendments

No amendments were filed subsequent to the final rejection of October 29, 2008.

## 5. Summary of Claimed Subject Matter

The present invention discloses an apparatus and method in which a user can select a set of broadcast channels based on the user's current location and other preferences (Specification, page 4, lines 5-7).

Appellant is appealing from the Examiner's rejection of claims 1, 4-13, 15-29, 31-39, and 41. Claim 1 is an independent claim. Claims 4, 10-18, and 32-34 depend directly from claim 1. Claims 5-9 depend from claim 4. Claims 19 and 20 depend from claim 18. Claims 21-29 depend from claim20. Claim 31 depends from claim 29. Claim 35 is an independent claim. Claims 36-39 and 41 depend directly from claim 35. Claims 2, 3, 14, 30, 40, and 42 have been cancelled.

In compliance with 37 C.F.R. § 41.37c(1)(v), a concise explanation of the subject matter defined in independent claims 1 and 35, including references to the specification by page and line number, and to the drawings follow.

As stated in Claim 1, the present invention provides an apparatus for selecting broadcast signals (Specification, page 4, lines 5-7). A first element of the apparatus is a tuner for receiving a plurality of AM/FM broadcast signals having multiple formats from a plurality of AM/FM broadcast sources. Support for this element can be found in the Specification, page 7, lines 5-6, and in Figure 1, elements 12 and 22. The apparatus further provides a memory, the memory storing: 1) a current location of the receiver and current time of day; 2) a local database of AM/FM broadcast sources for a plurality of AM/FM broadcast locations, the local, dynamically updatable database including program information associated with each of the plurality of AM/FM broadcast locations for a given time of day; and 3) a set of listener preferences including program choices. Support for this element can be found in the Specification, page 8, lines 6-8 and Figure 1, element 26 (for the memory), Fig. 2, elements 132 and 134 (for time and date), Specification, page 8, lines 18-19, and Figure 1 element 34 (for current location of the receiver), Specification, page 8, lines 26-30, and Figure 1, element 32 (for the database of broadcast sources); Specification page 19, lines 26-30, and page 20 lines 1-11 (for program information) and Specification, page 9, lines 4-7, and Figure 1, element 28 (for the set of listener preferences including program choices). The apparatus further provides a processor coupled to the tuner and the memory for selecting a group of live AM/FM broadcast signals from the plurality of live AM/FM broadcast signals based on a predetermined selection criteria and the local, dynamically database of AM/FM broadcast sources for a plurality of AM/FM broadcast locations, the predetermined selection criteria including the plurality of receivable AM/FM broadcast signals, the current location of the receiver and current time of day and the set of listener preferences including program

choices. Support for this element can be found in the Specification, page 8, lines 6-16, and Figure 1, element 36.

As stated in Claim 35, the present invention further provides a method for selecting broadcast signals on a receiver (Specification, page 4, lines 5-7). The method of claim 35 begins by creating a set of user preferences including program choices. Support for this step can be found in the Specification on page 15, lines 13-15, and Figure 3, element 304. Next, the method of claim 35 loads the set of user preferences and a database of AM/FM broadcast sources and program formats into a local, dynamically updatable database on the receiver. Support for this step can be found in the Specification on page 15, lines 23-25, and Figure 3, element 306. The local, dynamically updatable database includes program information associated with each of the plurality of AM/FM broadcast sources for a given time of day, and a location associated with each of the broadcast sources (see Figure 4B, and Specification on page 20, lines 1-27). Next, the method of claim 35 determines a location for the receiver and the current time of day. Support for this step can be found in the Specification on page 16, lines 1-10, and Figure 3, element 308. Next, the method of claim 35 receives a plurality of live AM/FM broadcast from the plurality of broadcast sources. Support for this step can be found in the Specification on page 16, lines 12-13, and Figure 3, element 310. Next, the method of claim 35 searches the local, dynamically updatable database of AM/FM broadcast sources based on the location of the receiver and the current time of day. Support for this step can be found in the Specification on page 16, lines 13-15, and Figure 3, element 312. Next the method of claim 35 creates one or more groups of live AM/FM broadcast channels identified by the search based on the set of listener preferences including program choices, wherein each of the one or more groups of live AM/FM broadcast channels correspond to the program choices. Support for this step can be found in the Specification on page 16, lines 24-25, and Figure 3, element 314. Finally, the method of claim 35 concludes by presenting the one or more groups of AM/FM broadcast channels

to the listener. Support for this step can be found in the Specification on page 17, lines 5-6, and Figure 3, element 316.

### 6. Grounds of Rejection to be Reviewed on Appeal

The Examiner has rejected claims 1, 4-13, 15-29, 31-39, and 41 under 35 U.S.C. § 103 as being unpatentable over Clayton et al., U.S. Patent 6,725,022 (hereafter Clayton) in view of Schwob, US. Patent 5,393,713 (hereafter Schwob). The issue is whether the Examiner is correct in asserting that claims 1, 4-13, 15-29, 31-39, and 41 are obvious under 35 U.S.C. §103 over Clayton in view of Schwob.

### 7. Argument

Both independent claims 1 and 35 of the present invention include a "local, dynamically updatable database of AM/FM broadcast sources...including program information associated with each of the plurality of AM/FM broadcast locations for a given time of day" residing in the memory of the receiver/apparatus (see Specification, page 20, lines 1-27, and Figure 4B, element 452).

Program information, as described by the present invention at page 20, lines 1-27, Fig. 4B, includes a data structure including not only a program format, but also specific, time-based program information for each station. This data structure includes: a date field, 454, a program time slot field 456, a pr gram name field 458, and a program format field 460 (Specification, page 20, lines 4-6). Thus, the present invention goes beyond merely identifying broadcast stations by program format, in that it enables a listener to choose a specific program itself by name and time, rather than just the more generic program format when searching for a broadcast.

With regard to claims 1 and 35, the Examiner admits in the Final Office Action that Clayton does not disclose "the local, dynamically updatable database including program information associated with each of the plurality of AM/FM broadcast locations for a given time of day" (page 3, lines 7-9). The Examiner then states that Schwob provides "a local, dynamically updatable database of AM/FM broadcast sources for a plurality of AM/FM broadcast locations, the local, dynamically updatable database including program information associated with each of the plurality of AM/FM broadcast locations for a given time of day" citing (col. 19-20 lines 64-4 and col. 20. lines 19-31).

Appellant respectfully submits that the Schwob reference, and more specifically the passages of Schwob cited by the Examiner neither disclose nor suggest a "local, dynamically updatable database of AM/FM broadcast sources...including program information associated with each of the plurality of AM/FM broadcast locations for a given time of day" as provided in claims 1 and 35 of the present application

With regard to col. 19-20 lines 64-4, the passage merely describes a memory means 42 (RAM) in which updated data is stored and retrieved by a CPU 2. The passage makes no mention of program information in any context.

With regard to col. 20, lines 19-31, the passage merely discusses a key 220 labeled as "update data" which enables a user to allow a user to update the receiver by tuning to a subcarrier-capable FM station that transmits the encoded update data in its current market. Once again, the passage makes no mention of program information in any context.

In one embodiment, Schwob does select a broadcast station based on user selected program format (Fig. 6, element 278). However, in contrast to Schwob, the present invention not only contemplates selection based on program format, it further enables the

listener to select **a specific program** (specification at page 19, line 26 to page 20, line 27, and Fig. 4B) in a time-based manner. Thus, by way of example, if a listener wishes to find a broadcast of the New York Yankee game currently being played, under the Schwob device, a multiplicity of stations would be identified as being of a "sports" program format. The user would then be forced to individually step through the multiplicity of stations identified as being "sports" format stations until the NY Yankee game is located. By contrast, under the present invention, the listener would be able to select a program choice of "NY Yankees" and only stations currently broadcasting the NY Yankee game would be selected.

Appellant respectfully submits that neither reference discloses nor suggests a "local, dynamically updatable database of AM/FM broadcast sources...including program information associated with each of the plurality of AM/FM broadcast locations for a given time of day" as provided in claims 1 and 35 of the present application, and thus claims 1 and 35 should be passed to issuance.

Claims 4-13, 15-29, 31-34, 36-39, and 41 depend, either directly or indirectly, from claims 1 and 35, which for reasons provided above, are now submitted as allowable. Thus, these dependent claims are also now submitted by Appellant as being in condition for allowance.

## 8. Claims Appendix

1.      (Previously Amended)  An apparatus for selecting broadcast signals, the apparatus comprising:

 a tuner for receiving a plurality of live AM/FM broadcast signals from a
    plurality of AM/FM broadcast sources:

 a memory, the memory including:

   a current location of the receiver and current time of day;

   a local, dynamically updatable database of AM/FM broadcast
   sources for a plurality of AM/FM broadcast locations, the local,
   dynamically updatable database including program information
   associated with each of the plurality of AM/FM broadcast locations
   for a given time of day;

   a set of listener preferences including program choices; and

 a processor coupled to the tuner and the memory for selecting a group of
    live AM/FM broadcast signals from the plurality of live AM/FM
    broadcast signals based on a predetermined selection criteria and
    the local, dynamically updatable database of AM/FM broadcast
    sources for a plurality of AM/FM broadcast locations,

 wherein the predetermined selection criteria includes the plurality of
    receivable AM/FM broadcast signals, the current location of the
    receiver and current time of day, and the set of listener preferences
    including program choices.

2.      (Cancelled)

3.      (Cancelled)

4. (Original) The apparatus of claim 1, wherein the current location of the receiver is entered by the listener.

5. (Original) The apparatus of claim 4, wherein the current location entered by the listener is a zip code.

6. (Original) The apparatus of claim 4, wherein the current location entered by the listener is a city code.

7. (Original) The apparatus of claim 4, wherein the current location entered by the listener is a city name.

8. (Original) The apparatus of claim 4, wherein the current location entered by the listener is entered via a keypad integral to the apparatus.

9. (Original) The apparatus of claim 4, wherein the current location entered by the listener is entered via voice input.

10. (Original) The apparatus of claim 1, wherein the current location of the receiver is provided by a global positioning system (GPS) receiver integral to the apparatus.

11. (Original) The apparatus of claim 1, wherein the current location of the receiver is provided by a global positioning system (GPS) receiver external to the apparatus.

12. (Original) The apparatus of claim 1, wherein the current location of the receiver is provided by a cellular phone integral to the apparatus.

13.    (Original) The apparatus of claim 1, wherein the current location of the receiver is provided by a cellular phone external to the apparatus.

14.    (Cancelled)

15.    (Previously Amended) The apparatus of claim 1, wherein the local, dynamically updatable database of AM/FM broadcast sources is provided to the receiver by a CD-ROM disc.

16.    (Previously Amended) The apparatus of claim 1, wherein the local, dynamically updatable database of AM/FM broadcast sources is provided to the receiver by a CD-RW disc.

17.    (Previously Amended) The apparatus of claim 1, wherein the local, dynamically updatable database of AM/FM broadcast sources is provided to the receiver by a writable DVD.

18.    (Original) The apparatus of claim 1, wherein the apparatus further includes an I/O port for transferring information from an external device to the apparatus.

19.    (Original) The apparatus of claim 18, wherein the external device is coupled to the I/O port via a wired connection.

20.    (Original) The apparatus of claim 18, wherein the external device is coupled to the I/O port via a wireless connection.

21.    (Original) The apparatus of claim 20, wherein the wireless connection is an RF connection.

22.     (Original)  The apparatus of claim 20, wherein the wireless connection is an IR connection.

23.     (Original)  The apparatus of claim 20, wherein the external device is a personal digital assistant (PDA).

24.     (Original)  The apparatus of claim 20, wherein the external device is a personal computer (PC).

25.     (Original)  The apparatus of claim 20, wherein the external device is a wireless phone.

26.     (Original)  The apparatus of claim 20, wherein the transferred information includes the current location of the receiver.

27.     (Original)  The apparatus of claim 20, wherein the transferred information is passed between two or more external devices prior to being passed to the I/O port of the apparatus.

28.     (Previously Amended)  The apparatus of claim 20, wherein the transferred information includes the database of broadcast sources and program information.

29.     (Original)  The apparatus of claim 20, wherein the transferred information includes the set of user preferences.

30.     (Cancelled)

31.     (Original) The apparatus of claim 29, wherein the set of user preferences includes specific program choices.

32.     (Previously Amended) The apparatus of claim 1, wherein the local database of AM/FM broadcast sources comprises a plurality of broadcast source entries, each of the plurality of broadcast source entries comprising:  a station identifier, a station format, a time slot, and a program name.

33.     (Original) The apparatus of claim 1, wherein the receiver is mounted within a mobile vehicle.

34.     (Original) The apparatus of claim 1, wherein the receiver is a hand-held device.

35.     (Previously Amended) A method for selecting broadcast signals on a receiver, the method comprising:

creating a set of listener preferences including program choices;

loading the set of listener preferences and a database of AM/FM broadcast sources into a local, dynamically updatable database on the receiver, the local, dynamically updatable database including program information associated with each of the plurality of AM/FM broadcast sources for a given time of day, and a location associated with each of the broadcast sources;

determining a location of the receiver and the current time of day;

receiving a plurality of live AM/FM broadcast channels from a plurality of AM/FM broadcast sources;

searching the local, dynamically updatable database of AM/FM broadcast sources based on the current location of the receiver and the current time of day;

creating one or more groups of live AM/FM broadcast channels identified by the search based on the set of listener preferences including program choices, wherein each of the one or more groups of live AM/FM broadcast channels correspond to the program choices; and

presenting the one or more groups of live AM/FM broadcast channels to the listener.


36.     (Original) The method for selecting broadcast signals of claim 35, wherein the step of determining the location of the receiver further includes:

receiving a global positioning service (GPS) signal; and
interpreting the GPS signal.

37.    (Original)  The method for selecting broadcast signals of claim 35, wherein the step of determining the location of the receiver further includes:

receiving a location signal via a cellular phone; and

interpreting the location signal.


38.    (Original)  The method for selecting broadcast signals of claim 35, wherein the step of determining the location of the receiver further includes:

receiving a location identifier code entered by a user; and

interpreting location identifier code.


39.    (Previously Amended)  The method for selecting broadcast signals of claim 35, wherein the step of searching the local, dynamically updatable database of AM/FM broadcast sources based on the location of the receiver further includes:

extracting a station location from each of a plurality of broadcast source entries residing within the local, dynamically updatable database of AM/FM broadcast sources;

comparing the station location with the location of the receiver to determine if the receiver is within receiving range of the broadcast source; and

building a list of receivable broadcast source records for all of the broadcast sources that are within receiving range.


40.    (Cancelled)


41.    (Previously Amended)  The method for selecting broadcast signals of claim 35, wherein the step of presenting the one or more groups of live AM/FM broadcast channels to the user further includes the step of:

assigning the one or more groups of live AM/FM broadcast channels to one or more user selectable controls on the receiver.

42. (Cancelled)

## 9. Evidence Appendix

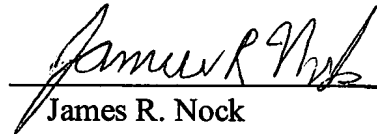There is no evidence attached for this appeal.

## Related Proceedings Appendix

There are no related proceedings. Therefore, there are no copies of decisions rendered by a court of the Board attached here.

Appellant believes this appendix satisfies the requirements of 37 C.F.R. § 41.37(c)(x).

Respectfully submitted,

Date: <u>February 9, 2009</u>

By: _____
/James R. Nock
Registration No. 42,937
IBM Corporation - Department 917
3605 Highway 52 North
Rochester, Minnesota 55901-7829

Telephone: (507) 253-4661
Fax No.: (507) 253-2382